

# ICAP CONFERENCE CPEC-MYTHS & REALITIES



The Institute of  
Chartered Accountants  
of Pakistan

## ENERGY PROJECTS UNDER THE CPEC REGULATORY ASPECTS

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(17<sup>TH</sup> FEB 2018)



# CPEC - ENERGY AGREEMENT

## **Agreement Signed:**

In supplement of the agreement on the China Pakistan Economic Corridor, the agreement on Energy Projects between both the Governments has been signed on 8<sup>th</sup> Nov, 2014, termed as 'Energy Cooperation Agreement.'

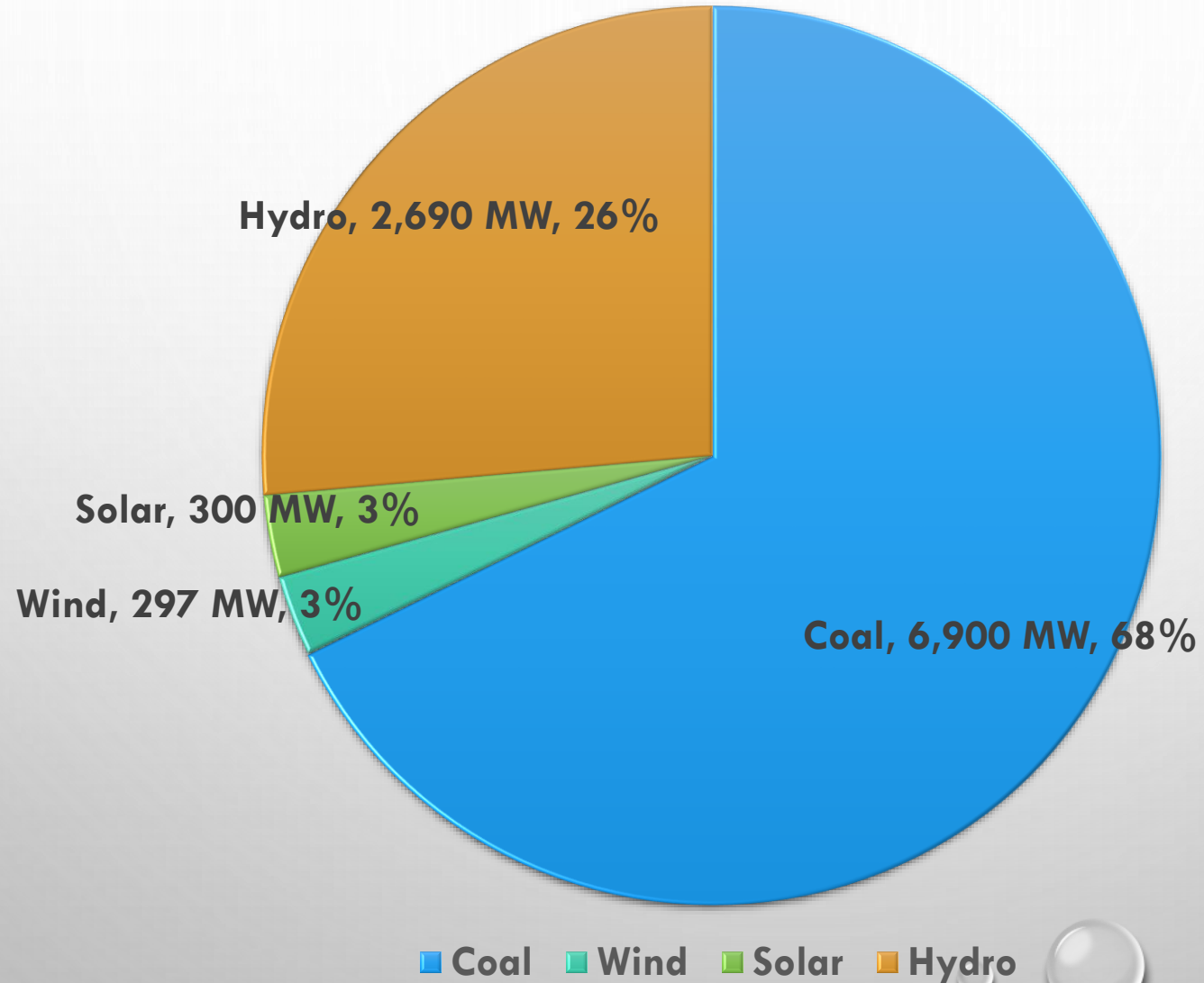
## **Projects' Capacity Included:**

As per the energy cooperation agreement, the total installed capacity of the projects was listed as 17,045 MW. It was also agreed to ensure the projects to be operational by the agreed timeline.

## **Salient Aspects of Agreement:**

To provide preferential treatment on taxation, ensure timely release of payments, provide security and ensure accelerated project completion.

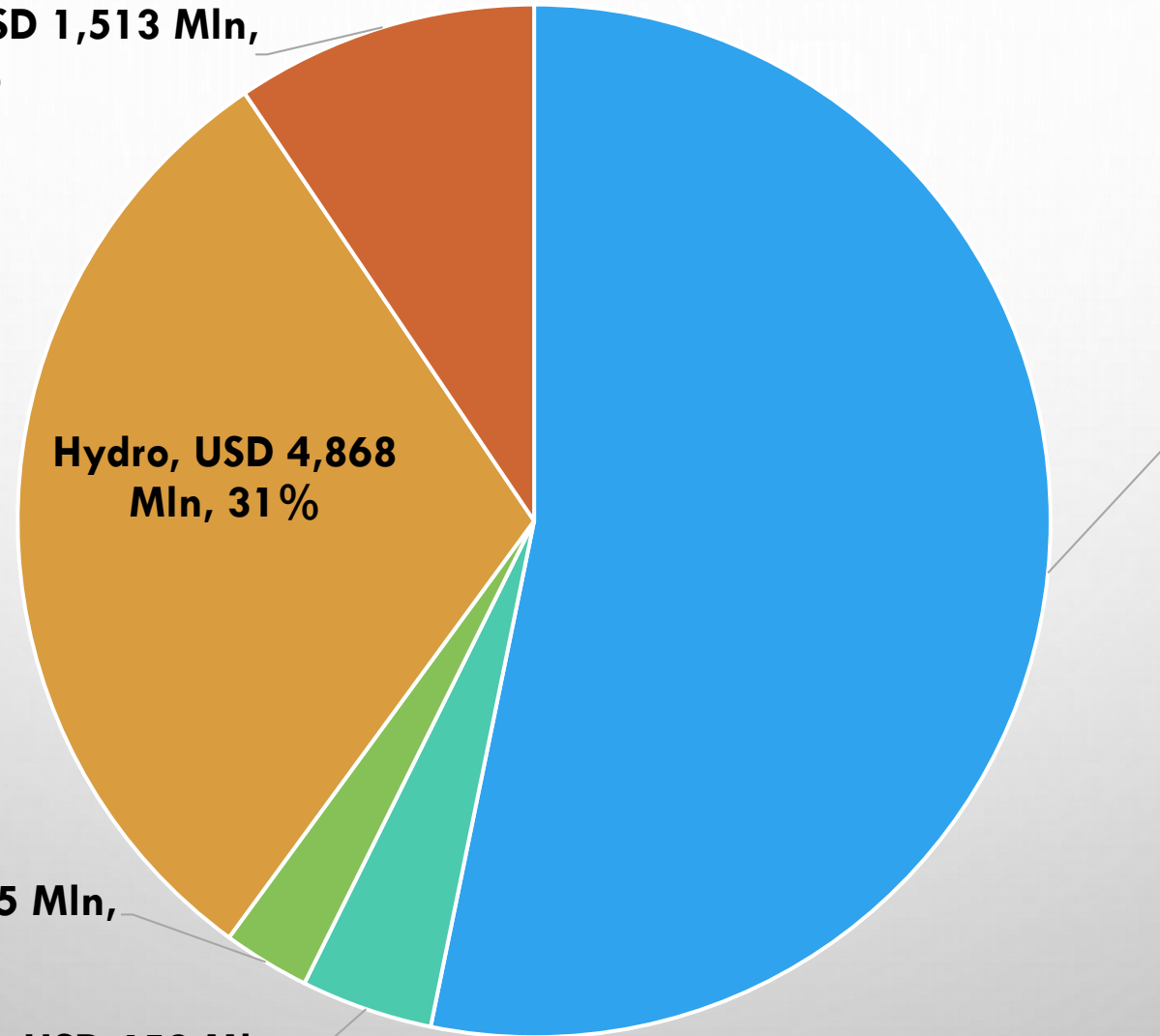
# CPEC Energy Projects- Energy Mix Awarded Tariff (10,187 MWs)



# CPEC ENERGY PROJECTS – COST/INVESTMENT

## AWARDED TARIFF (US \$ 15,976 M)

Transmission, USD 1,513 Mln,  
9%



Coal, USD 8,501  
Mln, 53%

Hydro, USD 4,868  
Mln, 31%

Solar, USD 435 Mln,  
3%

Wind, USD 659 Mln,  
4%

■ Coal ■ Wind ■ Solar ■ Hydro ■ Transmission

# ENERGY PROJECTS CATEGORIZATION

- PRIORITY PROJECTS
- ACTIVELY PROMOTED PROJECTS
- POTENTIAL PROJECTS

## CPEC PROJECTS - HYDRO

<b>Sr</b>	<b>Project</b>	<b>Location</b>	<b>MW</b>	<b>Total Project Cost US \$ Million</b>
i.	Karot Power Company (Pvt) Ltd	Karot-Jehlum River	720	1,698
ii.	S. K. Hydro (Pvt) Ltd	Naran- Kunhar River	870	1,707
iii.	Kohala Hydro Power Project	Kohala-Jehlum	1,124	2,240
<b>Total</b>			<b>2,714</b>	<b>5,645</b>

# CPEC PROJECTS - COAL

Sr.	Project Name	Location	MW	Total Project Cost US \$ Million
i.	Huaneng Shandong Ruyi (Pakistan) Energy (Pvt) Limited	Sahiwal	1,320	1,596.7
ii.	Port Qasim Electric Power Company (Pvt) Limited	Port Qasim, Sindh	1,320	1,596.7
iii.	China Power Hub Generation Company Limited	Hub Balochistan	1,320	1,596.7
iv.	Thar Coal Block-I Power Generation Company (Pvt) Ltd.	Thar, Sindh	1,320	1,596.7
v.	Engro Powergen Thar (Pvt) Limited	Thar, Sindh	660	848.9
vi.	Thal Nova (Pvt) Limited	Thar, Sindh	330	424.5
vii.	Thar Energy Limited	Thar, Sindh	330	424.5
viii.	Gawadar Coal Power Project	Gawadar	300	416.12
<b>Total</b>			<b>6,900</b>	<b>8,501</b>



# CPEC PROJECTS – RENEWABLE ENERGY

#	Project Name	Location	Type	MW	Total Project Cost US \$ Million
i.	Appolo Solar Development Pakistan Limited	Bahawalpur	Solar	100	144.92
ii.	Best Green Energy Pakistan Limited	Bahawalpur	Solar	100	144.92
iii.	Crest Energy Pakistan Limited	Bahawalpur	Solar	100	144.92
iv.	UEP Wind Power (Pvt) Limited	Jhampir, Sindh	Wind	99	227.62
v.	Sachal Energy Development (Pvt) Limited	Jhampir, Sindh	Wind	49.5	117.56
vi.	Hydrochina Dawood Power (Pvt) Limited	Jhampir, Sindh	Wind	49.5	113.81
vii.	Three Gorges Second Wind Farm (Pvt) Limited	Jhampir, Sindh	Wind	49.5	100.04
viii.	Three Gorges Third Wind Farm (Pvt) Limited	Jhampir, Sindh	Wind	49.5	100.04
<b>Total</b>				<b>597</b>	<b>1,094</b>



## CPEC PROJECT COST - TRANSMISSION

#	Project Name	Capacity	Total Project Cost US \$ Million
i.	Mitiari-Lahore Transmission Line Project (HVDC)	4000 MW, ±660 KV	1,513

# CPEC HYDEL PROJECTS - TARIFF PARAMETERS

#	Project Name	Gross Capacity	Type	Debt : Equity	IRR on Equity	Million US\$	USc/ kWh
i.	Karot Power Company (Pvt) Limited	720	Hydro	80:20	17%	1,698	7.62
ii.	S. K. Hydro (Pvt) Limited	870	Hydro	75:25	17%	1,707	8.81
iii.	Kohala Hydro Power Project	1100	Hydro	70:30	17%	2,240	7.24

# CPEC COAL PROJECTS-TARIFF PARAMETERS

#	Project Name	Gross Capacity	Fuel	Debt : Equity	IRR on Equity	Million US\$	USc/kWh
i.	Huaneng Shandong Ruyi (Pakistan) Energy (Pvt) Limited	1320	Coal	75:25	17%	1,597	8.36
ii.	Port Qasim Electric Power Company (Pvt) Limited	1320	Coal	75:25	17%	1,597	8.36
iii.	China Power Hub Generation Company Limited	1320	Coal	75:25	17%	1,597	8.36
iv.	Thar Coal Block-I Power Generation Company (Pvt) Ltd.	1320	Coal	75:25	20%	1,597	8.33
v.	Engro Powergen Thar (Pvt) Limited	660	Coal	75:25	30.65%	849	8.5
vi.	ThalNova (Pvt) Limited	330	Coal	75:25	30.65%	424	8.5
vii.	Thar Energy Limited	330	Coal	75:25	30.65%	424	8.5
viii.	Gawadar Coal Power Project	300	Coal	80:20	17%	416	7.74

# **CPEC RE PROJECTS – TARIFF PARAMETERS**

<b>#</b>	<b>Project Name</b>	<b>Gross Capacity</b>	<b>Type</b>	<b>Debt : Equity</b>	<b>IRR on Equity</b>	<b>Million US\$</b>	<b>USc/ kWh</b>
i.	Appolo Solar Development Pakistan Limited	100	Solar	75:25	17%	145	14.15
ii.	Best Green Energy Pakistan Limited	100	Solar	75:25	17%	145	14.15
lii	Crest Energyt Pakistan Limited	100	Solar	75:25	17%	145	14.15
iv.	UEP Wind Power (Pvt) Limited	99	Wind	75:25	18%	228	13.52
v	Sachal Energy Development (Pvt) Limited	49.5	Wind	80:20	17%	118	14.86
vi.	Hydrochina Dawood Power (Pvt) Limited	49.5	Wind	75:25	18%	114	13.52
vii	Three Gorges Second Wind Farm (Pvt) Limited	49.5	Wind	75:25	17%	100	10.45
Viii	Three Gorges Third Wind Farm (Pvt) Limited	49.5	Wind	75:25	17%	100	10.45

# CPEC TRANSMISSION PROJECTS – TARIFF PARAMETERS

#	Project Name	Gross Capacity	Type	Debt : Equity	IRR on Equity	Million US\$	USc/ kWh
i	Mitiari-Lahore Transmission Line Project	4,000	Transmission	80:20	17%	1,513	0.71

# CPEC ENERGY PROJECTS - SECURITY COST

- The Economic Coordination Committee of the Cabinet in Sept 2016 considered the summary submitted by the Ministry of Water and Power regarding "induction of security cost for the CPEC projects in the power tariff".
- CPEC projects which have achieved financial close and for the CPEC early harvest projects where financial close is still pending as well as new addition to the CPEC projects under implementation agreement, have been allowed 1% of the capital cost net of US \$150,000/- amount on account of security for the period starting from the construction period till the term of the power purchase agreement.

# CPEC ENERGY PROJECTS - SECURITY COST

- The determined security cost for each year of the construction period shall be paid by the IPPs to the relevant ministry/agency designated for the purpose and the same shall be included in the capital cost of the project at the time of COD TARIFF adjustment.
- During the operation period, IPPs of CPEC projects shall include in the monthly capacity invoice a separate charge on account of security cost.
- CPPA shall pay the invoiced amount in accordance with the other components of capacity charge.



THANK YOU